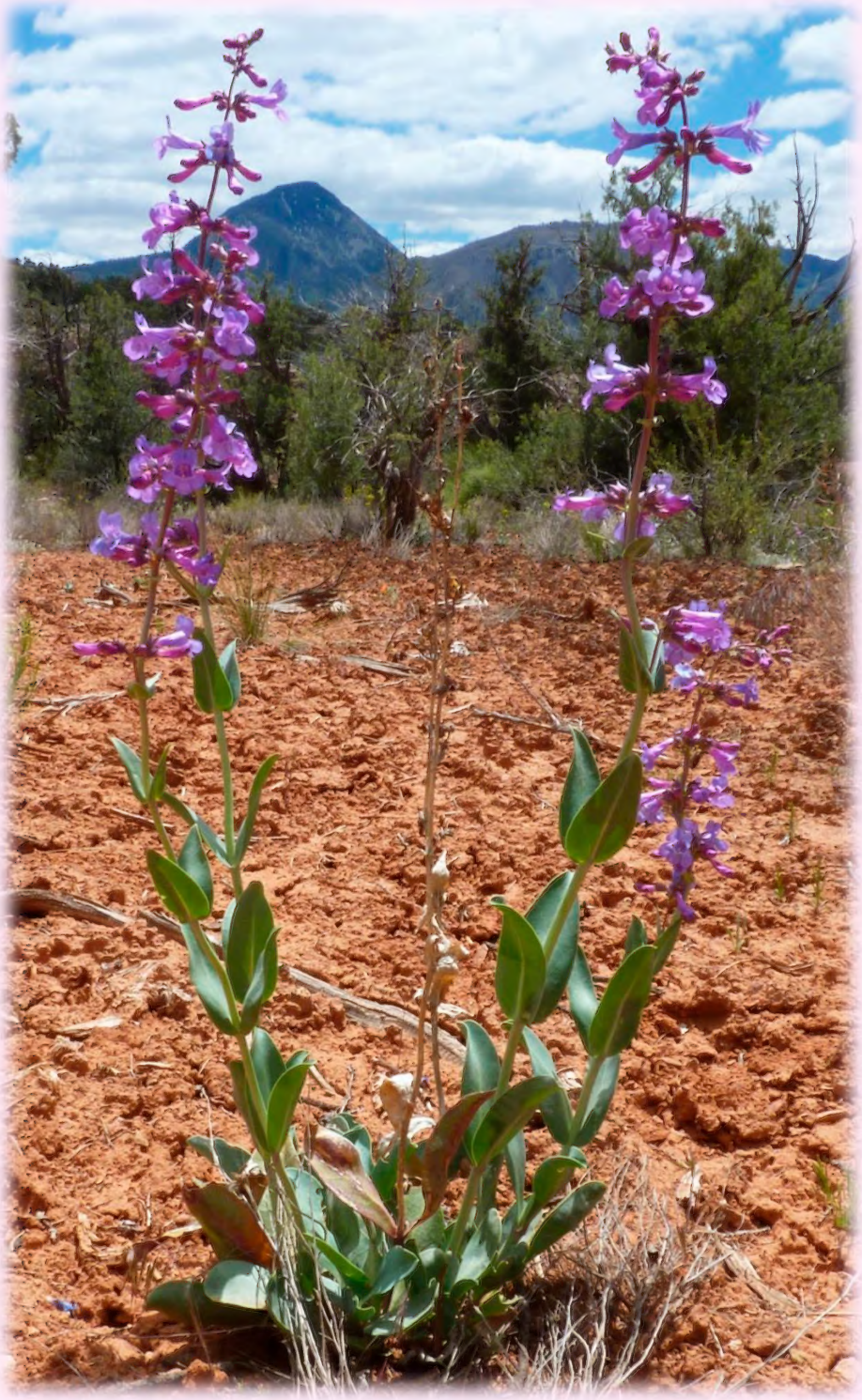
Aquilegia

Magazine of the Colorado Native Plant Society
Volume 48 No. 2 Conference 2024



The Southwestern Colorado landscape spans a number of ecosystems, ranging from low elevation deserts to high mountain alpine tundra. Many of these plants are familiar to anyone traveling in the southern or middle Rocky Mountains; others are endemic to the area or are found in only small populations within our state. A few of these more uncommon plants are showcased in this issue of *Aquilegia*. The front cover shows *Penstemon lentus* (Abajo penstemon) with Sleeping Ute Mountain in the background. This plant is found in the semi-desert and foothills of the Four-Corners region. Plants on this page are (clockwise from bottom left): *Echinocereus triglochidiatus* (claret cup or king cup; found in southwestern US and northern Mexico; resides in a variety of lower elevation habitats and prefers some shade), *Purshia stansburyana* (Stansbury's cliffrose; found in southwestern US and northern Mexico; prefers rocky limestone soils in lower elevations*), Castilleja haydenii* (Hayden's paintbrush; an alpine plant of New Mexico, Colorado, and Utah), *Draba graminea* (Rocky Mountain Whitlow grass; endemic to the San Juan Mountains of Colorado; found in soil pockets among rocks and boulders in the alpine), and *Trifolium brandegeei* (Brandegee's clover; found in subalpine and alpine areas of Colorado and New Mexico). See inside back cover for more southwestern Colorado plants. Back cover: *Astragalus flavus* (yellow milkvetch; found in the Colorado Plateau and southwestern US canyonlands; often in selenium-rich soils). *KA*

For more information on these plants, see https://www.swcoloradowildflowers.com/

All photos © Al Schneider

Aquilegia: Magazine of the Colorado Native Plant Society

Dedicated to furthering the knowledge, appreciation, and conservation of native plants and habitats of Colorado through education, stewardship, and advocacy

Inside This Issue

2024 Annual CoNPS Conference

21ST Annual Colorado Rare Plant Symposium: "Globally Imperiled Plants Found in Southwestern Colorado" 4

48TH Annual CoNPS Conference: "Restoration in the Wild and at Home" 5

Saturday Speakers and Presentations 5

Sunday Field Trips 7

Conference Agenda 11

Additional Conference Information 12

Durango Maps and Lodging Information 13

Registration 14

Featured Story

The Making of a Wildflower Guide BY KAREN HWANG 15

Announcements

CoNPS Grants and Scholarships 17

CoNPS Bookstore Information 17

Become a CoNPS Member 18

Can You Identify These Durango-Area Plants? 19

***AQUILEGIA:* Magazine of the Colorado Native Plant Society**
Aquilegia Vol. 48 No. 2 Conference 2024
ISSN 2161-7317 (Online) - ISSN 2162-0865 (Print) Copyright CoNPS © 2024 Members usually receive four issues per year (Spring, Summer, Fall, Winter). At times, issues may be combined. Articles from *Aquilegia* may be used by other native plant societies or non-profit groups if fully cited to the author and attributed to *Aquilegia*. All contributions are subject to editing for brevity, grammar, and consistency, with final approval of substantive changes by the author.
Managing/Design Editor: Kelly Ambler, alpineflowerchild@gmail.com
Production Manager: Alan Moores
Assistant Editors: Sue Dingwell, Patty Rhodes
Botanical Names Editor: Elizabeth Taylor
Copyeditors: Nan H. Cole, Sue Dingwell, Alyse Greenberg, Jenifer Heath, Sue Keefer, Lenore Mitchell, Patty Rhodes, Cathi Schramm, Linda Smith, John Vickery
Science Reviewers: Jenifer Heath, Cathi Schramm, John Vickery

OPERATING COMMITTEE
President: Alex Smith
Vice-president: Alex Crochet
Secretary: Elizabeth Rose
Treasurer: Gwen Kittel

DIRECTORS-AT-LARGE
Andrea England, Michele Ritchie, Anna Wilson

CHAPTER INFORMATION
Boulder: Sam Ahler, Pat Butler, Alyson Ennis, Debby Martin, Jackie Ramaley, and Lynn Riedel; BoulderCoNPS@gmail.com
Metro-Denver: Tim Berg, Alex Bruce, Connie Ellefson, Beth Lewis, Curtis Manning, Connor Sullivan; MetroDenverCoNPS@gmail.com
Northern: seeking new leadership, contact ColoradoNativePlantSociety@gmail.com for more information
Plateau: Jim Pisarowicz, Kathy Kimbrough
Southeast: Curtis Nimz, seeking new leadership in 2025
Southwest: Kenar Houghton, John Bregar

COMMITTEE CHAIRS
Conservation: Mo Ewing, Brad Klafehn, Linda Smith
Education & Outreach: Michele Ritchie
Field Studies: Gwen Kittel
Horticulture: Ann Grant, Alex Crochet, Alex Smith
Media: Kelly Ambler
Research Grants: Stephen Stern
Restoration: Andrea England
Scholarships: Cecily Mui

WEBSITE AND SOCIAL MEDIA
Webmasters: Mo Ewing, Sue Dingwell
Social Media: Anna Wilson, Tom Zeiner

CoNPS STAFF
Maggie Gaddis, Executive Director, ExecutiveDirector@conps.org
Anne Beard, Director of Operations, office@conps.org

21ST Annual Colorado Rare Plant Symposium "Globally Imperiled Plants Found in Southwestern Colorado"

Friday, September 20

9:00 AM – 4:00 PM

The Colorado Rare Plant Symposium is held each fall in conjunction with the Colorado Native Plant Society's Annual Conference. Hosted by the Colorado Natural Heritage Program, the symposium is an annual meeting to address the status and conservation needs of rare plants in Colorado. The symposium will be held in the Vallecito Room in the Student Union at Fort Lewis College in Durango.

This year's symposium will include a photo review and discussion of selected rare plants, as well as presentations from partners on rare plant conservation actions and research. Colorado Natural Heritage Program (CNHP) botanists will present updates on changes in the CNHP conservation status tracking list since 2023. The final agenda is under development.

CNHP tracks the location and condition of over 500 globally and/or state imperiled plants, working closely with botanists and land managers across Colorado to develop the state's most comprehensive and accurate dataset of Colorado's rare flora. Coordination among the rare plant conservation community is key to the success of conservation for these species, and information from the symposium will be used to update the location and status information in CNHP's statewide database.

Past presentations and species-specific meeting notes are available on the CNHP website for 2004-2023. View or download copies of past symposia presentations at https://cnhp.colostate.edu/projects/colorado-rare-plant-symposia/

We would love to see you! Please come for an opportunity to network with other rare plant enthusiasts and contribute to the conservation of Colorado's significant rare plant biodiversity.

Registration is available on the CoNPS events calendar at this link: https://conps.org/home-2/events/event-listing/#!event/2024/9/20/cnhp-rare-plant-symposium. Updated details on the agenda, food options, and the potential to attend virtually will be provided at this link as available.

If you have interest in giving a talk at the symposium, would like to suggest a topic to be covered, or to ask for more information, please contact Jessica Smith jp.smith@colostate.edu

A few rare plants found in southwestern Colorado. From left to right: *Phlox caryophylla* (clove phlox, © Jessica Smith), *Lupinus crassus* (Paradox Valley phlox, © Bernadette Kuhn), *Ipomopsis polyantha* (Pagosa skyrocket, © Jessica Smith), and *Astragalus schmolliae* (Schmoll's milkvetch, © Bernadette Kuhn). Courtesy of Colorado Natural Heritage Program.

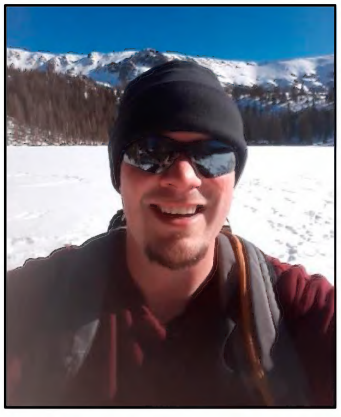
48TH Annual CoNPS Conference "Restoration in the Wild and at Home"

Let us take you on an adventure with the Southwest Chapter of the Colorado Native Plant Society for the 2024 Annual Conference. The meeting will be held in the Student Union Ballroom at Fort Lewis College on September 21, with field trips in the surrounding area on September 22. The conference agenda follows the theme of restoration, from the largest landscape views to the smallest. From federal public lands to backyard gardens, restoration can change the world. Let this be the conference that brings you to this special corner of Colorado and changes how you think about your role in this ever-changing world.

To deepen our commitment to our conference theme, we will be participating in National Public Lands Day for the first time. Our speakers will host field trips, some of which will have a service component.

To register, go to https://conps.org/home-2/events/event-calendar-2/#!event/2024/9/21/conps-annual-conference-durango

Saturday Speakers and Presentations



Alex Smith

Welcome to the 48th CoNPS Annual Conference

CoNPS president Alex Smith will open the meeting. He has worked in horticulture in Colorado for the better part of a decade. He is the owner of a landscaping company in Colorado Springs focusing on using native plants and providing hardscaping material for Colorado homeowners.

Ross McCauley and *Astragalus oocalycis* (Arboles milkvetch). © Ross McCauley

Ross McCauley

Exploring the Flora of Southwestern Colorado

With habitats ranging from the dry deserts of the Colorado Plateau to the high alpine of the Southern Rockies, Southwestern Colorado supports an enormous diversity of plant life. McCauley has had the pleasure of studying this diversity for the past 15 years and has learned that every species, from the most common tree to the rarest herb, has a unique history of adaptation to this land. In this presentation, he will explore some of the charismatic, and perhaps a few of the not so charismatic, plants that help to define the flora of this corner of our state. He will also dive into the stories of some of this diversity that he and his students have investigated, ranging from long-term geologic patterns of intercontinental disjunctions and ice age relicts to short-term patterns of chromosomal variations and butterfly-mediated hybridization.

Dr. Ross McCauley is a professor of Biology and curator of the Herbarium at Fort Lewis College. His research and teaching focuses on plant systematics, evolutionary biology, and conservation, and has ranged from work with rare plants in the Ohio River Valley to studies of species diversification in Mexican oaks to the evolutionary origins of tree-forming asters in the Galapagos Islands. He has been recognized as a Fulbright Scholar and has been active in botanical research with over 30 published papers and 50 presentations at national and international meetings. As a strong proponent of botanical education, he has mentored over 50 undergraduate theses focusing on plant biology, with six of his students earning awards from the Botanical Society of America for work completed under his guidance.

Maggie Gaddis

CoNPS and the USDA Region 2 USFS Native Plant Materials Program: Putting the Right Seed in the Right Place at the Right Time

The National Native Seed Strategy, funded by the Bipartisan Infrastructure Law, is the first national land management strategy to employ native seeds for ecological restoration. In partnership with the Colorado Natural Heritage Program (CNHP), the Colorado Native Plant Society is administering the USDA Region 2 United States Forest Service (USFS) Rocky Mountain Native Plant Materials Program (RM NPMP). We assist in species selection and collect native seeds in the five-state region of USFS Region 2. Our goal is to ensure that genetically ►

◄ and geographically appropriate seed is available for the USFS to use in land management. These restoration efforts include post-fire restoration, soil stability, maintenance or improvement of wildlife habitat, and provisions for resilient ecosystems. Through our strong botanical leadership and our many volunteers, we are able to influence the direction of the RM NPMP, expand its outreach, and increase the impact of the program through seed collection efforts. Local contacts keep track of when seeds are ready to collect so that collectors don't make unnecessary trips, which reduces the ecological footprint of the project. We have four two-day seed collections per month in the calendar through October. Please find the seed collection nearest you and contribute to these efforts.

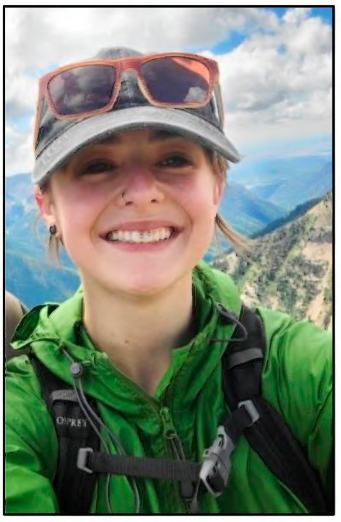
Dr. Maggie Gaddis is the executive director of the Colorado Native Plant Society. Maggie is a restoration ecologist by academic training. She originally started volunteering for CoNPS as the southeast chapter chair because she needed more botanists to participate in her citizen science-based research in the Garden of the Gods in Colorado Springs. Graduate students from all over the Front Range came down to help her collect data, and that is when she knew that her people were in CoNPS. Maggie was hired in 2021 as the first executive director of CoNPS.

Amanda Kuenzi

Mountain Studies Institute's High Elevation Fen Restoration

Since 2012, the Mountain Studies Institute (MSI) has been working with the US Forest Service, the Army Corps of Engineers, the National Forest Foundation, and associates of Purgatory Resort to restore two fen locations north of Silverton, Colorado. Through the hard work of many volunteers, including Colorado Native Plant Society members, we have made great progress towards restoring these sensitive ecosystems. In one case, MSI has restored the Chattanooga Fen to a fully functioning wetland. Comparatively, the Ophir Fen continues to be a challenge to revegetate. We will explore what we've learned over the past 12 years of working on these high elevation wetlands.

Amanda Kuenzi, community science director at Mountain Studies Institute, leads education, community engagement, and citizen science programs, capitalizing on her botany, restoration, and stewardship expertise. She has more than 20 years of experience leading field-based teams, experiential education, and youth involvement in conservation, including at Bandelier National Monument and Grand Canyon National Park. At MSI, she leads the Environmental Education and Biodiversity Programs, with projects throughout the San Juan Mountain communities. She previously served as Chair for the CONPS southwest chapter.

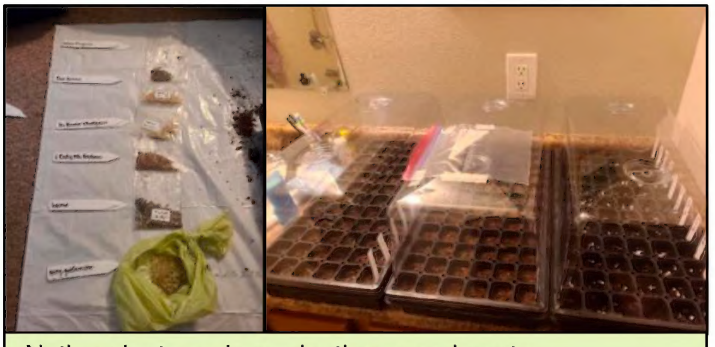


Kenar Houghton

Soil Chemistry and Native Plant Germination

Soil quality is a key determinant in the successful growth of any plant species. The unique makeup of soils in Colorado contributes directly to the wide variety of ecosystems that we enjoy here. The alpine tundra, coniferous forests, riparian and prairie habitat, and high-altitude deserts would not be as rich in plant biodiversity if it were not for the unique development of soil in each ecosystem. Studying the dependence of native grasses and wildflowers on local soils will shed light on the success rate of reintroducing these plant species to their native habitat, to communal areas in cityscapes, and to the backyards of those seeking to restore native pollinator populations. In this presentation, Houghton will discuss the chemical makeup of various soil types and how germination rates of several native grasses and wildflowers are affected by different soil mixtures. This information improves our ability to introduce native species into urban/suburban spaces, and helps inform natural resource and land management practices.

Kenar Houghton is the new CoNPS southwest chapter chair. She is a graduate of UC Colorado Springs, where she met Maggie Gaddis, a member of the geography and environmental studies faculty. Maggie inspired Kenar to pursue her environmental science degree with an emphasis on natural resource management, and encouraged her passion for native plants in her education and research. Kenar joined CoNPS in 2020 and has fallen in love with the organization, the work, and the people. Her goal is to continue to support the mission of CoNPS and to support ►



Native plant seed germination experiments.
© Kenar Houghton

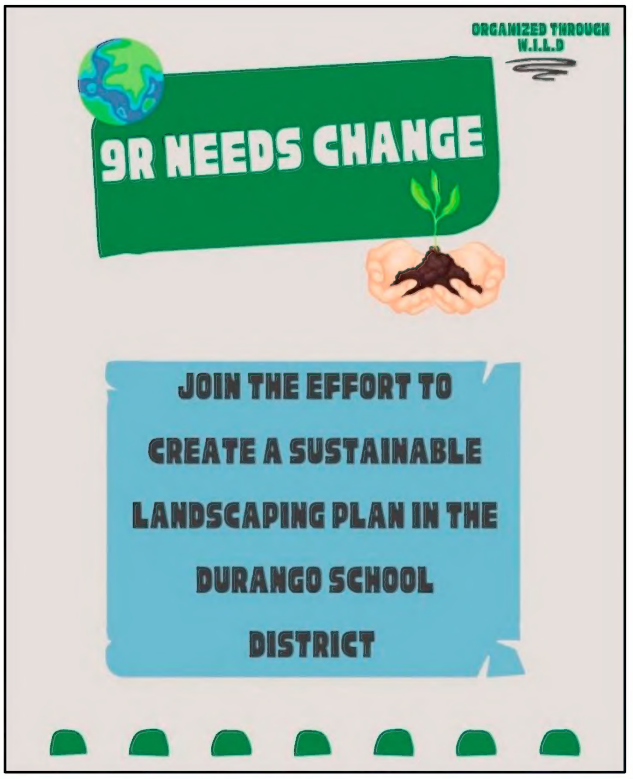
◄ *the southwest chapter in collaboration, outreach, and new opportunities. A lifelong resident of Colorado, Kenar resides in Durango, where she works for the US Forest Service as an environmental coordinator and as the climate-change contact for the San Juan National Forest. In her free time, she loves to be outdoors—whether for hiking, camping, riding her bike, or snowshoeing. Kenar also loves to read, play the piano, and create art when her schedule allows.*

Alyxx Ford

Citizen Activism in High Schools

Schools make up a large part of the land area in towns and lead-by-example in their communities. Because education in conservation is rapidly gaining importance, restoration of native plants at school sites is only fitting. Increasing the town's conservation, biodiversity, and leadership in these fields is necessary, but most importantly, schools need to teach young minds to know and appreciate the native plants and wildlife that are all around them. This will provide the biggest change as students learn to love the natural world. Ford will describe her efforts to increase environmental education in local schools.

Alyxx Ford is a senior at Durango High School. Her love and activism for conservation and the environment are important motivators that allow her to create change and



action. She runs a club and non-profit, WILD (Women in Leadership Development), serves on the 9R School District Sustainability Council, and advocates for sustainable landscaping efforts in the 9R School District. This has led to the creation of a new 9R committee focused on establishing a set of standards that district buildings and landscaping will need to follow in the near future. Alyxx Ford is truly becoming one of the young leaders for change and education in environmentalism that our world needs.

Sunday Field Trips

Please consider joining your fellow members on one of the trips exploring the natural habitats around Durango. Our trip leaders have put together a diverse range of possible field trips this year. Details on where to meet will be provided at the conference.

Lime Mesa
Leader: Ross McCauley
8:00 AM – 3:00 PM

A unique area of subalpine forest and alpine tundra, Lime Mesa occurs over Leadville limestone. The open forest mixed with limestone talus supports several uncommon species. On this day-long outing, we will explore some of the fall flora as we make our way northeast of Durango through the fire scar of the 2002 Missionary Ridge Fire and up to the southwestern edge of the Weminuche Wilderness. We will start our outing driving about 30 miles. Most of this will be on improved gravel roads; however, the last couple of miles do get a bit rough. We will start hiking at about 10,900 feet and spend time exploring as we make ►

Townsendia rothrockii (Rothrock's Easter daisy).
© Ross McCauley

◄ our way to an alpine lake and across Lime Mesa. We will try to catch a late-season glimpse of unique plants including *Xanthisma coloradoense* (Colorado tansy aster), *Townsendia rothrockii* (Rothrock's Easter daisy), and *Asplenium viride* (green spleenwort). If we have time, we will hike to the north end of Lime Mesa to enjoy the view over Chicago Basin. This will be a moderately strenuous outing with a maximum hiking distance of six miles. We will be hiking at high elevation so participants should be aware of common hazards, including uneven footing, altitude, rain, etc.

Dr. Ross McCauley is a professor of Biology at Fort Lewis College. He teaches courses in botany in both lab and field settings and spends much of every summer exploring widely across southwestern Colorado collecting plants for botanical research.

US Forest Service Seed Collection
Leaders: Allie Clark and Kenar Houghton
8:00 AM – 1:00 PM

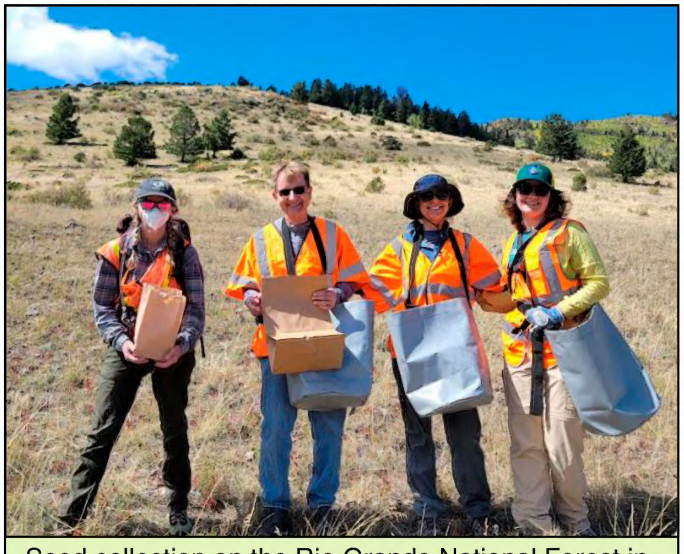
Join us for seed collection to support the US Department of Agriculture Rocky Mountain Region 2 Native Plant Materials Program. Come collect seeds for the restoration of national forests and grasslands across the Rocky Mountain region! Our goal is to ensure there is genetically and geographically appropriate seed available for use by the US Forest Service at no cost. These seeds ensure integrated benefits for long-term soil stability, maintaining or improving wildlife habitat, and providing for resilient ecosystems. Seed collection is a wonderful, low-impact activity for folks of all ages. We will work together to identify and collect the program's target species for the restoration of forest system lands within our region. Details and video training about these target species will be sent to registered participants. Hazards include uneven ground, wildlife, sun exposure, variable weather, and travel outside of cell reception. We travel slowly, by foot, with collection bags over low slope terrain to collect seed. For all of our seed collection events, we will facilitate camping, which is optional. All seed collection events will start from the campsite. We will carpool to the seed collection sites and return to the campsite at the end of the day.

Your hosts include Allie Clark, CNHP crew lead, Native Plant Materials Program, and Kenar Houghton, CoNPS southwest chapter chair.

Ophir Fen Seed Collection
Leader: Amanda Kuenzi
8:00 AM – 1:00 PM

Near the top of Ophir Pass, at approximately 11,000 feet, we will visit a high-elevation iron fen wetland. We will discuss wetland ecology and view the restoration techniques that have been employed. While taking in the spectacular San Juan Mountain scenery, we will collect seed to use for future restoration measures at the fen. About a 20-minute drive north from Silverton, high clearance four-wheel drive vehicles are preferred. We will meet at Animas City Park in Durango to carpool to Silverton. We will ask drivers with four-wheel drive vehicles to take additional passengers. We expect to be back in Durango by 1:00 PM. Please bring lunch, water, snacks, sunscreen, rain jacket, warm layers, and sturdy waterproof shoes. Be ready for all types of weather—we can have all four seasons in a day at this elevation!

Amanda Kuenzi is the community science director at Mountain Studies Institute. She has more than 20 years of experience leading field-based teams, experiential education, and youth involvement in conservation. She previously served as chair for the CoNPS southwest chapter. ►



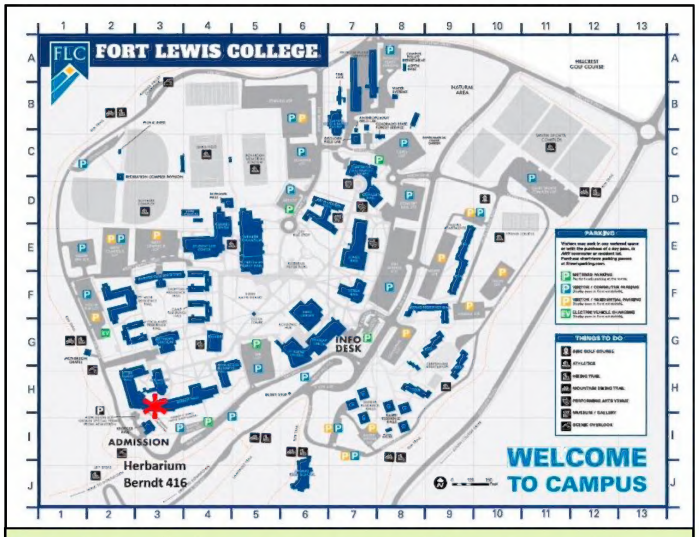
Seed collection on the Rio Grande National Forest in the San Luis Valley at the 2023 CoNPS Annual Conference. © Maggie Gaddis

Volunteers install erosion control materials at Ophir Fen. © Amanda Kuenzi

◄ Herbarium Open House
Host: Aurea Cortes-Palomec
9:00 AM – NOON

With approximately 20,000 specimens of plants and fungi, the Fort Lewis College Herbarium is the largest such collection in western Colorado. Come by and explore our historical and modern specimens documenting the flora of southwestern Colorado and the greater Four Corners area.

Dr. Aurea Cortes-Palomec, your host at the Herbarium, is a senior lecturer of Biology at Fort Lewis College where she teaches courses in Introductory Biology, Conservation Biology, and Botany. Her professional research interests are in plant reproductive biology and conservation.



Fort Lewis College campus map. The location of the Herbarium is indicated by the asterisk (*).

Native Plants at the Durango Botanic Gardens
Leader: Melanie Palmer
11:00 AM – NOON

The Durango Botanic Gardens are public gardens maintained entirely by volunteers. Located around the Durango Public Library, they are funded by the non-profit Durango Botanic Gardens. The Gardens comprise 10 themed areas on one-and-a-quarter acres, including our newest garden, the Community Venue Garden, currently under construction. This garden will include a distinct native plant/pollinator garden.

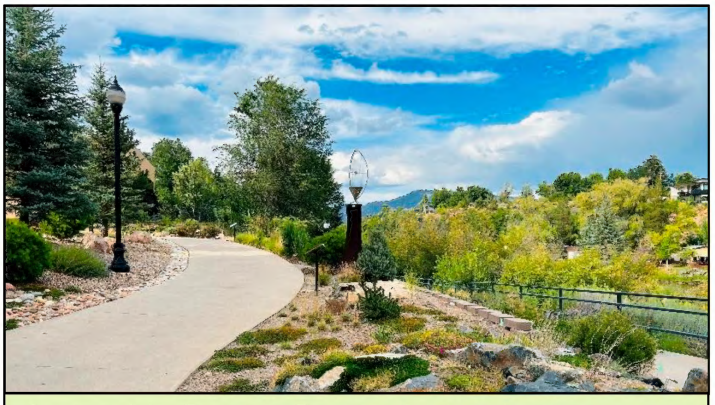
The recently dedicated Literary Garden features six separately themed beds that connect specific plants and garden styles to works of literature. From Youth to Contemporary, from the Classics to the Southwest, from the Indigenous Peoples to Hispanic literature, each one is evocative of its theme.

The oldest and largest garden is a Plant Select Demonstration Garden with plants representing seven different life zones. You will also see an arboretum with trees appropriate for smaller home landscapes, a crevice garden designed by the now world-famous Kenton Seth, an ornamental grass garden, and a pollinator garden. The Gardens all emphasize sustainable best practices and the use of water-wise plants. Native plants are incorporated throughout, and a list of native plants will be available.

Melanie Palmer, the Gardens' curator, will lead the tour with the assistance of several of our docents, many of whom Melanie trained. Melanie arranges for selecting and planting trees, shrubs, and other flora in the gardens. She manages the Durango Botanic Gardens Docent Program and is co-chair of the annual bulb sale. She also manages and maintains the database of over 1,000 plants.

Native Plants at the Santa Rita Water Reclamation Facility
Leader: Amy Wise
9:00 – 10:30 AM

In 2020, the City of Durango approached the Durango Botanic Gardens (DBG) for assistance in designing a demonstration garden at the newly constructed Santa Rita Water Reclamation Facility. The now-completed garden, located along the Animas River Trail (ART), would add another attraction for trail users while inspiring them to consider landscaping and gardening techniques that reduce water consumption. In turn, the DBG suggested the city work with three award- ►



A view of the Durango Botanic Gardens from the Animas River Trail with the Crevice Garden in the foreground. © Heather Robertson

Santa Rita Water Reclamation Facility's Demonstration Gardens incorporate many plants native to Colorado and the Southwest. © Bill LeMaire

◄ winning local landscape designers who had each successfully produced designs for the Gardens: Lisa Bourey, Eva Montane, and Brooke Safford. Their subsequent designs envisioned three sections of the larger garden encouraging ART users to consider alternatives to our water-thirsty lawn culture.

The Demonstration Garden is comprised of four unique garden landscapes. There is a Pollinator Garden comprised of a multitude of diverse flowering native plants favorable to our local pollinators, and a Forestscape Garden which recreates the spirit and vegetation found in our surrounding forests, yet was planted to be inviting and open to the users of the Animas River Trail. There is also a Rain Garden comprised of xeric plants, natural gravel beds, local boulders, and rain-capturing features intended to help the gardens self-sufficient water needs. Finally, there will be a series of crevice gardens in the general spirit of Victorian rock gardens, but with native flora to both alpine and semi-arid desert micro-environments that require less soil and water than many of the other types of plants found in our gardens.

The tour will be led by Amy Wise, grounds maintenance manager of the Santa Rita Demonstration Gardens. The landscape designers will assist her. Amy is from Indiana and moved to the area in 1992 to attend Fort Lewis College where she received her degree in Anthropology, emphasizing Archaeology. Wanting to be an archaeologist since she was six years old, she applied her degree to working as one for 18 years, starting at Mesa Verde National Park, then the BLM/USFS out of Durango, the San Juan Mountains Association, and running a couple of her own archaeological consulting companies. In 2013, she began her own wildfire mitigation business, reducing the potential impacts of catastrophic wildfires on people's homes here in Southwest Colorado. Amy retired from this critical work in 2023. She began working here at the Santa Rita Water Reclamation Facility in April of this year, where she enjoys applying her many years of outdoor experience and public education to taking care of the newly planted Demonstration Garden and the surrounding grounds of the Santa Rita Water Reclamation Facility.

Friday Evening
7:30 – 9:15 PM

Movie Showing

Native Seeds: Supplying Restoration

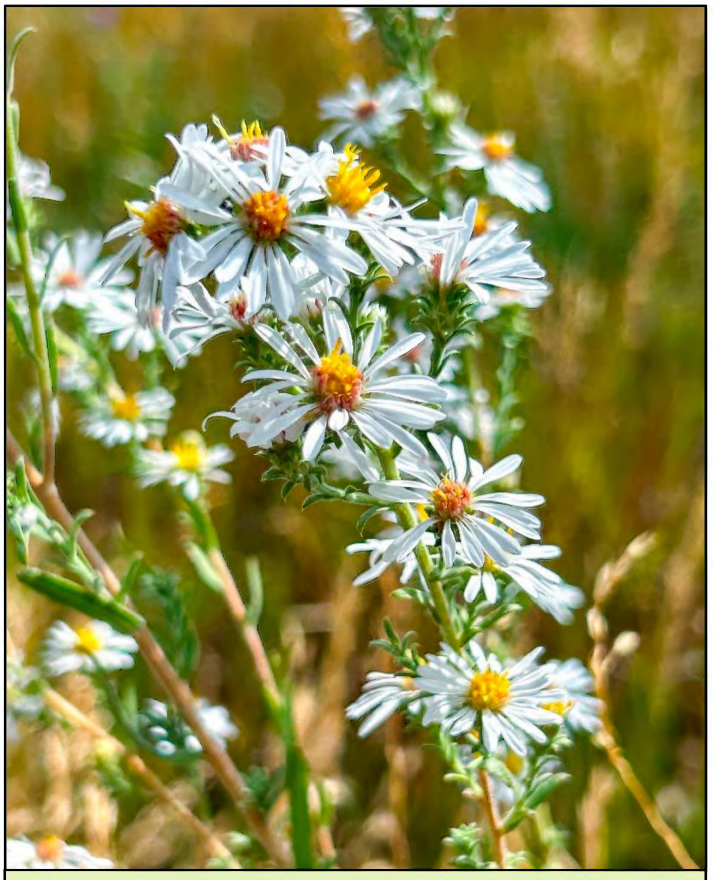
Junction Creek Group Campsite

Filmed over four seasons, this series weaves together footage of seed collectors, farmers, researchers, and land managers working to scale up the supply of native seeds to meet the growing restoration demand in the western United States. We see the staggering scale of damage to vast landscapes and meet tenacious people who are finding creative, scrappy solutions to restore ecosystems.

Falls Creek Botany Hike
Leaders: Al Schneider and Karen Hwang
8:00 AM – 12:30 PM

We will lead you on a botany hike to see beautiful fall flowers in the Durango area. We will show you techniques in distinguishing similar looking plants, and also discuss how to capture their beauty with your phone or camera. We will carpool to the Falls Creek trailhead because parking there is limited. We will travel not more than 1.5 miles and with little to no elevation gain.

Al Schneider is the author and photographer of http://www.swcoloradowildflowers.com He worked as an English professor, developer of the Ozark Trail, backcountry guide, and computer-based educator with the Ute Mountain Utes. Karen Hwang is the author of Wildflowers of Durango Trails*. She moved to Durango in 1997 and has been studying flowers there ever since. She loves mountain biking, skiing, and hiking. When she and her husband are not outside enjoying the mountains, they spend their time traveling to see friends, children, and grandchildren.*



Symphyotrichum falcatum (Prairie Aster).
© Karen Hwang

Conference Agenda

To register online, go to https://conps.org/home-2/events/event-calendar-2/#!event/2024/9/21/conps-annual-conference-durango Or mail in your paper registration (page 14).

Friday, September 20

8:00 AM – 4:00 PM: Rare Plant Symposium, Student Union Vallecito Room, Fort Lewis College

7:30 – 9:15 PM: Showing of *Native Seeds: Supplying Restoration*. This video series exploring the native seed supply chain in the western United States. Junction Creek Group Campsite.

Saturday, September 21

8:00 AM – 5:00 PM: CoNPS Annual Conference, Student Union Ballroom, Fort Lewis College

Time	Description	Speaker
8:00 AM	Attendee check-in/registration; on-site CoNPS Bookstore; Photo Contest viewing	
9:00 AM	Welcome and Introductions	Alex Smith, CoNPS president
9:10 AM	Keynote Presentation - Exploring the Flora of Southwestern Colorado	Ross McCauley, professor, Fort Lewis College
10:00 AM	Rocky Mountain Native Plant Materials Program of the US Forest Service, Department of Agriculture	Maggie Gaddis, CoNPS executive director
10:30 AM	Mountain Studies Institute's High Elevation Fen Restoration	Amanda Kuenzi, community science director, Mountain Studies Institute
10:55 AM	Break	
11:15 AM	Soil Chemistry and Native Plant Germination	Kenar Houghton, environmental coordinator, USFS
11:40 PM	Citizen Activism in High Schools	Alyxx Ford, citizen activist
12:00 PM	Lunch	Fort Lewis College
1:10 PM	Lifetime Achievement Award	Maggie Gaddis, CoNPS executive director
1:30 PM	Committee Meetings	
2:30 PM	Chapter Meetings	
4:00 PM	Social time	

Sunday, September 22

Field trips

Meetup locations will be provided at the conference. Additional field trips may be scheduled. Stay tuned!

Lime Mesa, 8:00 AM – 3:00 PM

USFS Seed Collection, 8:00 AM – 1:00 PM

Ophir Fen Seed Collection, 8:00 AM – 1:00 PM

Fort Lewis College Herbarium Open House, 9:00 AM – NOON

Native Plants at the Durango Botanic Gardens, 11:00 AM – NOON

Native Plants at the Santa Rita Water Reclamation Facility, 9:00 – 10:30 AM

Falls Creek Botany Hike, 8:00 AM – 12:30 PM

Additional Conference Information

Annual Photo Contest Call for Entries

Share your spectacular photos of native plants and scenery in our Annual Photo Contest! Your favorite photos from any year are eligible. You may submit one photo in each of five categories, listed below.

1. Colorado Native **Plants**
2. Colorado Native Plant **Landscapes**
3. Native Plant **Gardens**
4. Colorado Native Plants and **Wildlife**
5. **Artistic** interpretation of Colorado Native Plants. Artists are welcome! Photo of a fine art painting or an altered photograph or collage are acceptable. The artwork must contain at least one recognizable Colorado native plant.

Entries must be a single work of original material submitted by the contest entrant. Entries MUST include the scientific name of the primary plant species in the photo, at least to genus level, and preferably to species level. Include your last name and photo category in the file name. Please submit photos by August 31. Contest is open to all CoNPS members. For full details, see https://app.viralsweep.com/contest/full/f46f8b-139696?framed=1

Voting will take place online September 1-18, and the winners will be announced at the annual conference.

Colorado Open Space Alliance Annual Conference

September 29 - October 2
Grand Junction, CO

The Colorado Open Space Alliance is a regional organization that works cooperatively to share information, create public awareness, and foster partnerships needed to protect and preserve the special places of Colorado.

CoNPS Executive Director, Dr. Maggie Gaddis will be speaking at this conference on "*Rocky Mountain Native Plant Materials Program of the USFS.*" She will be joined by Carlyn Perovich, USFS forest ecologist.

https://coloradoopenspace.org/conference

Volunteers Needed for the Annual Conference

We will need volunteers for a variety of jobs at the conference. Please contact laurel.conps@gmail.com

In addition, we need reporters and photographers to prepare summaries of the conference presentations and to report on conference field trips. Please contact Kelly Ambler at alpineflowerchild@gmail.com

Let's Minimize Waste at the Conference!

The Conference Planning Committee is committed to minimizing waste from the food and beverages served at the conference. Fort Lewis College will provide tableware for lunch. We hope that all participants will bring their own cups for coffee and other drinks during the breaks. Water will be available to refill your water bottles. Thank you, everyone!

Opportunity to Sponsor the Colorado Native Plant Society 48th Annual Conference

$500 Title Sponsor: five conference registrations, all of the acknowledgements below, plus an organizational statement provided in the conference presentation slides and in the *Aquilegia* issue summarizing the conference

$300 Ambassador: three conference registrations, all of the acknowledgements below, plus your logo in the executive director's email signature, plus your logo and name on the homepage of the CoNPS.org website for one year

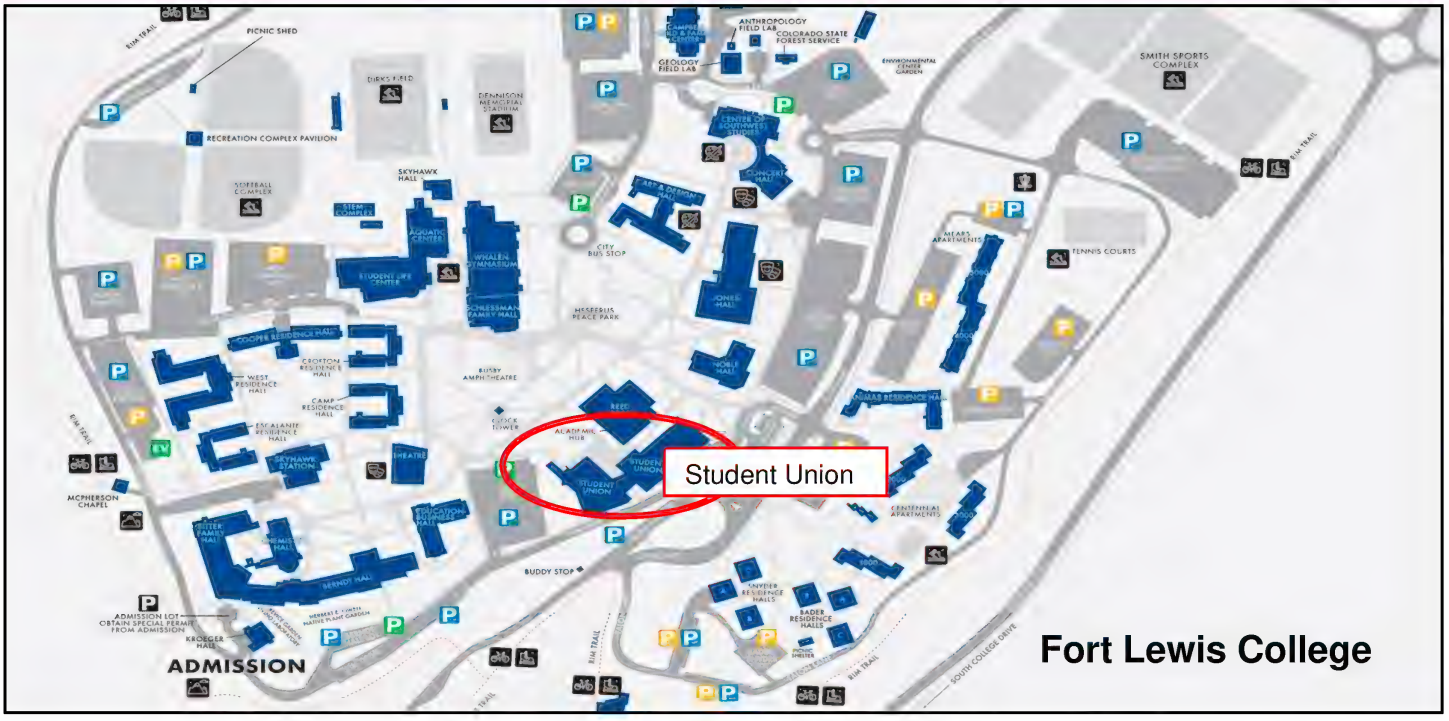
$200 Contributor: two conference registrations, plus your name/logo in the Conference media, and plus acknowledgement in ALL of the *Aquilegia* magazines for one year

$100 Friend: one conference registration, plus your name in the *Aquilegia* issue summarizing the Conference

$100 Partner Booth: one conference registration, plus a booth/table at the Rare Plant Symposium on Friday, September 20 and/or at the Conference on Saturday, September 21.

https://conps.org/home-2/events/event-calendar-2/#!event/2024/9/21/sponsor-the-conps-annual-conference

Durango Maps and Lodging Information



Housing

The following hotels have set aside rooms for CoNPS members. Mention “Colorado Native Plant Society” when booking rooms.

Holiday Inn & Suites Durango Downtown, 21636 US160 https://www.holidayinn.com/redirect?path=hd&brandCode=HI&localeCode=en&regionCode=1&hotelCode=DRODC&_PMID=99801505&GPC=CNP&cn=no&viewfullsite=true

Holiday Inn Express Downtown, 1111 Camino Del Rio, 970-422-8700 https://www.hiexpress.com/redirect?path=rates&brandCode=EX&localeCode=en&regionCode=1&hotelCode=DROCD&checkInDate=20&checkInMonthYear=082024&checkOutDate=22&checkOutMonthYear=082024&_PMID=99801505&GPC=CNP&cn=no&viewfullsite=true

Econo Lodge, 2002 Main Ave., 970-247-4242

Best Western Plus Rio Grande Inn, 400 E 2nd Ave, 970-385-4980

Junction Hotel & Hostel, 2202 Main Ave., 970-259-3311

Additional lodging options can be found at https://www.durango.org/lodging/

Camping

Want to camp? We have the Junction Creek Group Campsite reserved, which will accommodate 40 people. Come join us! This is a great way to extend your networking and social engagement. Also, lots of people last year said they always wanted to go camping but don't want to go alone. Here's your chance to come hang with your flower friends.

Additional camping options can be found at https://www.durango.com/durango-camping/

Registration

Registration is available online through September 15 at 5:00 PM. Please log in if you are a CoNPS member, then proceed to the Calendar of Events to register. https://conps.org/home-2/events/event-calendar-2/#!event/2024/9/21/conps-annual-conference-durango

If registering by mail, please complete the following registration form for each person attending. Mail registration form and payment to: CoNPS, 704 E. Boulder St., Colorado Springs, CO 80903

Name (first, last) _____

Phone _____ **Email** _____

Mailing address _____

_____

_____

Member registration*

The 21ST Annual Rare Plant Symposium @ $15	$
The 48TH Annual Conference	$
Regular registration @ $75	$
Virtual option only @ $35	$
Total enclosed	**$**

Non-member registration* Consider becoming a member! See page 18

The 21ST Annual Rare Plant Symposium @ $15	$
The 48TH Annual Conference	$
Regular registration @ $85	$
Virtual option only @ $45	$
Total enclosed	**$**

* A limited number of scholarships are available. See CoNPS.org for details.

Field Trip Options

Please indicate first and second choices for Sunday field trips (included in registration), assigned on first-come, first-served basis.

_____ Lime Mesa

_____ Native Plants at the Durango Botanic Gardens

_____ US Forest Service Seed Collection

_____ Ophir Fen Seed Collection

_____ Native Plants at the Santa Rita Water Reclamation Facility

_____ Herbarium Open House

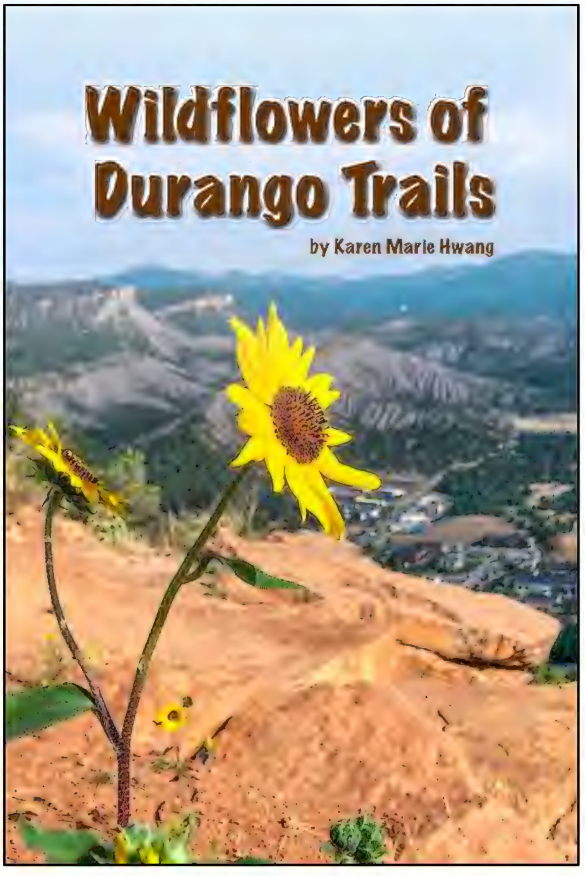
_____ Falls Creek Botany Hike

Featured Story

The Making of a Wildflower Guide

By Karen Hwang

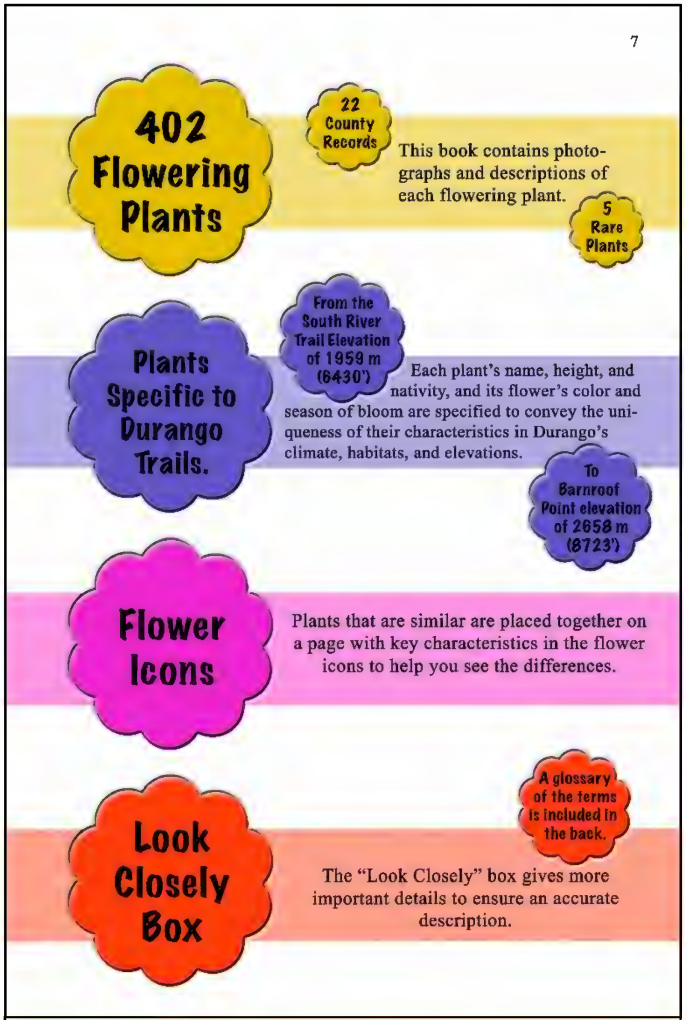
My love for the Colorado mountains began in 1977 when my family watched the show *The Life and Times of Grizzly Adams*. Wrongly convicted of murder, Grizzly Adams hid in the mountains with a grizzly bear that he rescued as a cub. I grew up in Oklahoma, so being in the mountains seemed like a distant dream. That dream actually came true in 1997 when my husband became a State Farm Agent in Durango, Colorado. At the time, we had two little girls, four and two years old. Soon after we moved to Durango, we visited Kennebec Pass in La Plata Canyon. I couldn't believe how beautiful wildflowers could be. Up to that point, I hadn't really taken much notice of flowers, but there were so many in La Plata Canyon that I couldn't help but notice! Over the next few years, we continued to visit the higher elevation trails. As we did, my desire to find out the names of all the flowering plants grew.



In 2006, I saw an article in the *Durango Herald* about Gudy Gaskill, the driving force behind the formation of the Colorado Trail. She was leading wildflower walks in American Basin that summer. I wished that I could learn from her, but it wasn't the right time for me. Ready with a recently purchased book, *Rocky Mountain Flora* by James Ells, our then family of four kids and a Golden Retriever drove to American Basin. I hoped Gudy was there so I could meet her. Sure enough, she was there leading a group of people. I rolled down the window of my car and asked if she was Gudy. She said, "I sure am!" I said, "It's a pleasure meeting you. I just hiked up to Gudy's Rest just the other day." She replied, "I was hiking that part of the trail one time, and I came to that point and thought, it would be a nice place for a bench. Not long after that, the Colorado Trail Foundation built one for me and called it Gudy's Rest." Gudy became an inspiration to me. She was a woman who dared to accomplish a dream, she wanted to share it with others, and she taught others to appreciate what she had come to love.

Soon, I began to take notice of plants around my neighborhood trails as I was walking our dog. I took pictures of the wildflowers and made a list of what I had identified using *Rocky Mountain Flora*. However, the book wasn't enough, so I had to find other sources. Eventually, I discovered swcoloradowildflowers.com by Al Schneider; and then I also came across the Colorado Native Plant Society's Facebook page, where people posted pictures of plants for others to comment on. I decided to post a picture of a purple aster and asked if anyone knew what it was. Al Schneider commented and said it was a *Symphyotrichum laeve* var. *geyeri.* I asked him what books he used to identify plants, and he gave me the names of two books: *Flora of the Four Corners* and *Plant Identification Terminology*. I had no idea how to use the books, so I emailed him and asked if he could teach me. He gave me a call and we talked for about two hours. During the call, he gave me all kinds of information and resources to use. It was a little overwhelming, but I persevered and eventually began to put the information to use. I also learned scientific names by making myself use the scientific name instead of the common name when I learned a plant. I was determined to learn everything I could about plants.

In 2019, I toyed with the idea of writing a wildflower book featuring the many flowering plants in Durango, so I began to take some photographs as I biked the area trails. In March of 2022, I decided to make that dream of writing a book come true. I started by hiking or biking 20 different trails many times throughout that season, meticulously documenting and photographing as many plants as I could. My purpose in writing this book was to engage in nature's game of hide and seek with plants to help both the layperson and ►


7
402 Flowering Plants
22 County Records
This book contains photographs and descriptions of each flowering plant.
5 Rare Plants
Plants Specific to Durango Trails.
From the South River Trail Elevation of 1959 m (6430')
Each plant's name, height, and nativity, and its flower's color and season of bloom are specified to convey the uniqueness of their characteristics in Durango's climate, habitats, and elevations.
To Barnroof Point elevation of 2658 m (8723')
Flower Icons
Plants that are similar are placed together on a page with key characteristics in the flower icons to help you see the differences.
A glossary of the terms is included in the back.
Look Closely Box
The "Look Closely" box gives more important details to ensure an accurate description.

Introductory page from *Wildflowers of Durango Trails.*

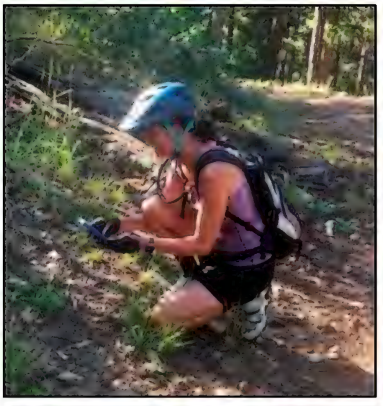
57
Twigs and leaves have a lemony scent when crushed.
Twigs and leaves are smooth.
Smooth Sumac
Rhus glabra
Sumac Family * Anacardiaceae
May-June: CT
To 2 m (79") * Native
Aromatic Sumac
Rhus aromatica var. trilobata
Sumac Family * Anacardiaceae
April-June: SRT,CT,SP,FLC,SM+
To 3 m (10') * Native
Look Closely
Aromatic a shrub; leaves trifoliate, leaflets lobed or simple; inflorescence a dense spike, appears before leaf emergence; fruits red with glandular hairs, R. glabra fruits similar.
Smooth Sumac a shrub; leaves pinnate, leaflets serrate; inflorescence a pyramidal panicle, appears with or before leaf emergence.
Poison Ivy rhizomatous subshrub; leaves trifoliate, leaflets acute or acuminate, teeth few, terminal leaflet larger. Causes itchy skin rash.
Flowers are cream to yellow with dark veins.
The middle leaf stalk is about 3 times as long as the lateral leaf stalks.
Poison Ivy
Toxicodendron rydbergii
Sumac Family * Anacardiaceae
April-June: CT,PP,FC,AM,LG+
To 70 cm (27") * Native

Sample page from *Wildflowers of Durango Trails.*

◄ professional botanist have a better understanding of what exists in this area. I also wanted to inspire in others an appreciation of the beauty that surrounds them. In the process, I found 402 flowering plants—22 of these plants were county records (the plants hadn't been previously recorded in the county) and five of them were rare plants. I photographed every plant with my iPhone 12 or 14 and hiked and biked over 1,000 miles during the 2022 and 2023 wildflower seasons.

Finally, I was ready to compile the book. I knew I couldn't do it alone, so I asked Al Schneider to be my editor, and he gladly accepted. My book is unique because it is specific to the Durango area and gives locations of the plants along 20 trails surrounding the town. Similar plants are placed together on a page with key characteristics that help the reader understand the differences between them.

Wildflowers of Durango Trails is now available for purchase. To get your copy, go to wildflowersofdurangotrails.com or conps.org. It's also available at Maria's Bookshop in Durango.



Karen Hwang is from Owasso, Oklahoma and received her Social Work degree from the University of Oklahoma. She and her husband have four children and four grandchildren. They moved to Durango in 1997 for her husband's job with State Farm. There, her love of wildflowers began. Over the years, she honed her skills of identifying plants and eventually learned to use botanical keys and terminology. She is self-taught, but adds that without Al Schneider's willingness to help her learn—in addition to his website (swcoloradowildflowers.com)—she would not have learned as quickly.

Editor's note: For a guide to wildflowers of the San Juan Mountains in general, see Common Wildflowers of the San Juan Mountains *by CoNPS members Mary Menz and Jim Pisarowicz.*

Announcements

CoNPS Grants and Scholarships

The Colorado Native Plant Society funds grants and scholarships to support our mission of furthering the knowledge, appreciation, and conservation of native plants and habitats of Colorado through education, stewardship, and advocacy.

The Marr Grant honors Dr. John W. Marr, University of Colorado professor and first president of CoNPS. Grants of up to $1,000 are awarded for field or laboratory research that advances knowledge on the biology of Colorado's native plants and contributes to their conservation. Grants are awarded annually with a February 15 application deadline.

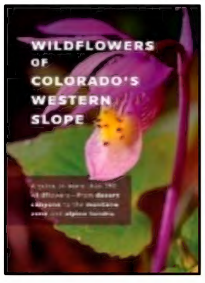
The Steinkamp Grant honors Dr. Myrna P. Steinkamp, who was another founding member of CoNPS. Her years of work on behalf of the Society included helping with both editions of the Society's publication, *Rare Plants of Colorado*. Grants of up to $1,000 support work on Colorado native plants that are rare or of conservation concern, and are awarded annually with a February 15 application deadline.

The Mission Grant supports the development of educational materials, programs, projects, or events to inform people about Colorado native plants. Mission grants may also be awarded for native plant research that does not overlap with work funded by Marr and Steinkamp grants. Grants of up to $1,000 are given twice annually; application deadlines are August 1 and February 1.

The Alice Eastwood Scholarship supports undergraduates pursuing bachelor's degrees that ultimately advance the mission of the Colorado Native Plant Society. Alice Eastwood was a pioneering Canadian American botanist who wrote and published the first book on flora in central Colorado, *A Popular Flora of Denver, Colorado*, in 1893. One or two scholarships are administered each fall, with successful applicants receiving awards of $950 or $475; the latter was Eastwood's annual salary earned while teaching at Denver East High School in the late 1800s.

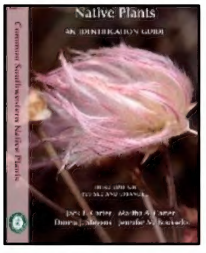
CoNPS Bookstore

The CoNPS Bookstore will be at the annual conference! Need to update your library? Here are a few options.



Wildflowers of Colorado's Western Slope
by Jim Pisarowicz and Mary Menz

This colorful pictorial guide provides identification of more than 350 wildflowers from semi-desert shrublands to the high alpine Rockies and points between.

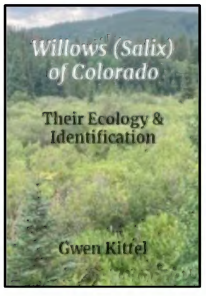


Common Southwestern Native Plants: An Identification Guide, 3rd Edition
by Jack L. Carter, Martha A. Carter, Donna J. Stevens, and Jennifer M. Bousselot

Combining scientific information and lyrical expression, the authors bring together 128 woody plants and 64 herbaceous flowering plants common to the Southwest.

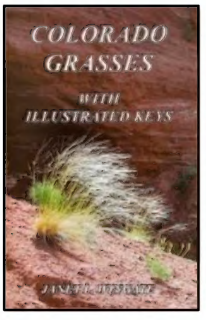
Flora of Colorado
by Jennifer Ackerfield

This book is a comprehensive guide to the over 3,300 vascular plants in Colorado, and contains descriptions, distribution maps, habitat information, flowering times, and elevation ranges for all species.



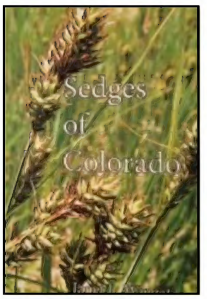
Willows (Salix) of Colorado
by Gwen Kittel

This work covers all aspects of Colorado willows and how to identify them in any season. Includes discussion of willow ecology and where to find them in the landscape.



Colorado Grasses with Illustrated Keys
by Janet L. Wingate

Colorado Grasses with Illustrated Keys is a guide to over 360 taxa of grasses growing in Colorado. Most of the species are also found in Wyoming and the southern Rocky Mountains.



Sedges of Colorado
by Janet Wingate

This publication features illustrated keys to *Carex* species, detailed descriptions, illustrations, and distribution maps.

Become a CoNPS Member

Name_____
Address _____
City _____ State_____ Zip_____
Phone _____
E-mail_____
Chapter (if known) _____

CHAPTERS: Arkansas River, Boulder, Metro-Denver, Northern (Ft. Collins-Greeley), Plateau (Grand Junction and West Slope), San Luis Chapter (Crestone, Alamosa, Salida), Southeast (Colorado Springs-Pueblo), Southwest (Durango), or Unaffiliated

If this is a change in address, please write your old address here.
Address _____
City _____ State_____ Zip_____

☐ **Check box to receive information on volunteer opportunities**

DUES include the electronic version of the *Aquilegia* magazine, published quarterly.

The full color electronic publication arrives by email. For those members without email addresses, please apply for a scholarship to receive print copies.

Membership dues cover a 12-month period.

You may also join online at https://conps.org/join-donate/

□ New □ Renewal

□ Student $17 □ Senior (65+) $17 □ Individual $25
□ Family $35 □ Plant Lover $50 □ Supporting $100
□ Patron $250 □ Benefactor $500 □ Life Member $800

☐ **Printed Color Copy** of the magazine, *Aquilegia*, $20

CONTRIBUTIONS to CoNPS are tax deductible:

John Marr fund for research on the biology and natural history of Colorado native plants $ _____

Myrna P. Steinkamp Memorial fund for research and other activities to benefit the rare plants of Colorado $ _____

Alice Eastwood Scholarship fund to help support undergraduates pursuing bachelor's degrees that ultimately advance the mission of the Society $ _____

Mission Grant to support the mission of the Society $ _____
Total included: $ _____

Please make check payable to:
Colorado Native Plant Society

Send completed form and full remittance to:
CoNPS Office
1536 Wynkoop Street, Suite 911
Denver, CO 80202

Thank You to our 2023 Annual Conference Sponsors!

Can You Identify These Durango-Area Plants?

Answers (clockwise from upper left): ***Lewisia nevadensis*** **(Nevada bitterroot),** ***Cylindropuntia whipplei*** **(Whipple's cholla),** ***Pediomelum megalanthum*** **(scurfpea),** ***Eremogone eastwoodiae*** **(Eastwood's sandwort),** ***Astragalus coltonii*** **(Colton's milkvetch), and** ***Asclepias macrosperma*** **(large seed milkweed).** **© Al Schneider**

Colorado Native Plant Society

1536 Wynkoop St. Ste 911
Denver, CO 80202
http://www.conps.org

Friday Night Movie

Junction Creek Campground

21ST Rare Plant Symposium, September 20

Globally Imperiled Plants
Found in Southwestern Colorado

and

48TH Annual CoNPS Conference, September 21–22

Restoration in the Wild and at Home